

I-5 – South 317th Street HOV Direct Access Project Update

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Construction Update

Crews have begun placing wall panels for the second bridge support, to the right of the temporary roadway at S. 317th. We're also still building panels for the retaining wall to the north of the first bridge support, as well as placing drainage and fill for this wall.

Last night, we completed the first phase of pavement rehab in the project area. Workers have been cutting slots and inserting dowel bars at pavement joints on I-5 during nighttime closures. This is part of the "dowel bar retrofit" technique – see below for more information.

For more project information visit
http://www.wsdot.wa.gov/Projects/I5/S317th_DirectAccess/.

Don't Change Lanes in Temporary Roadway

As you drive through the work zone, please remember to stay in your lane. Lane changes are prohibited in the 1.3-mile temporary roadway between Military Road and S. 320th Street.

Dowel Bar Retrofit

As part of this project, we're making improvements to the 42-year-old I-5 pavement near S. 320th Street, both northbound and southbound. This pavement is constructed of concrete panels. The weight of heavy vehicles pushes the panels down over time, and this causes the panels to wear down at the joints, leading to the "thump-thump, thump-thump" you hear as you drive on old pavement.

To make your ride on I-5 through Federal Way smoother, we're using a pavement rehabilitation technique called "dowel bar retrofit." This technique was first used in Washington in the early 1990's. There are two phases to this work:

- 1) Install dowel bars between concrete panels. Crews cut slots across the joints between panels (see photo at http://www.wsdot.wa.gov/Projects/I5/S317th_DirectAccess/photos/dec04.html). We jackhammer out pieces of pavement at the slots and insert dowel bars, grouting them in place, then patch the pavement back up. We completed this first phase on I-5 in Federal Way on Monday night, Dec. 13.

- 2) Grind the pavement. With the dowel bars in place and pavement patched, crews use diamond-tipped saw blades to grind the pavement to a texture that helps tires grip the road. We'll perform this phase of the rehab on I-5 in Federal Way in January.

Dowel bar retrofit saves money. It's much more cost effective than paving over the old concrete pavement with asphalt because we can place dowel bars only where they're needed. If we repaved the freeway we'd also have to pave the shoulders and ramps, which have suffered much less wear than the mainline. Dowel bar retrofit saves about \$55,000 per mile over repaving.

Although dowel bar retrofit is a relatively new process, we expect it to **extend the life of pavement about 10 to 15 years**. We base this on tests performed in California using a Heavy Vehicle Simulator (HVS), which can simulate up to 20 years of heavy, inter-urban freeway truck traffic in about two to three months.

In addition to the dowel bar retrofit, we're also removing and replacing a section of southbound I-5 pavement near S. 320th Street. We had to move southbound traffic to the temporary roadway in the median while we build the bridge supports, so we're taking advantage of this and completely replacing the pavement on this stretch of southbound I-5.

Web Site Improvements

WSDOT and Sound Transit have been upgrading our Web sites in our effort to provide you with helpful and interesting project information in a user-friendly format.

On WSDOT's project page, you'll now find a separate page for each month's construction photos: http://www.wsdot.wa.gov/Projects/I5/S317th_DirectAccess/photos.htm.

You can now read past editions of our weekly e-mail update at http://www.wsdot.wa.gov/Projects/I5/S317th_DirectAccess/email.htm.

And don't forget our archive of project radio messages at http://www.wsdot.wa.gov/Projects/I5/S317th_DirectAccess/Radio.htm.

Sound Transit has redesigned their entire Web site. We invite you to visit their project pages for the direct access ramps

http://www.soundtransit.org/projects/svc/st-express/st-express_federalwayhov.asp

and the Federal Way Transit Center

http://www.soundtransit.org/projects/svc/st-express/st-express_fedway.asp.

Highway Advisory Radio Updates

Make sure you catch our latest weekly radio message on **AM 1520** in Federal Way. Questions or comments? E-mail Laura Johnson at JohnsoL@wsdot.wa.gov.
